# Introducing Ramionics (Ramin Theory & Ramion Based Physics) To Resolve the Fine-Structure Constant and Dark Matter Problems By Ramin Khosravi (KSA)

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# Introduction and energy

Ramion theory or Ramin Theory explains how universe is made from **only one and exactly one basic particle**, called Ramion (Rotational **A**nti-matter and **m**atter **I**on), an absolute energy $\boldsymbol{e}$ in form of **three-dimensional** sphere (not more!) with real (not imaginal) measurable parameters like energy **e**, pressure **P** ,energy density **ρ** ,volume **V=** $\frac{4\pi}{3}r^3$ **,** radius **r** ,angular speed **ω**, rotational speed on its surface(**v=r. ω =c=light speed**) ,mass equivalent to its energy $m_r=\frac{e}{c^2}$ and spin and electrical charge **±q** and two poles: north and south!

ramions **contains, generate and defines** any thing:

space, time, compatible relativity + quantum,

matter, antimatter and their asymmetry,

gravity and so called dark matter, Time dilation,

energy, so called dark energy, space energy causing space expansion,

all elementary forces: gravity (+strong nuclear force), electromagnetic (+weak nuclear force),

entanglement, warm hole, black hole,

elementary particles structure geometry,

physics constant like fine structure constant or ratio of elementary particles mass.

energy parts of any ramion:

(i) **Pressing Energy=PV**
A linear moving inside volume V (like Gas molecules) that generate pressure **P** onto all neighbour ramions around its volume **V**

(ii) **Rotational Energy=** $\frac{1}{2}mc^2$

A rotational moving means rotational energy that generates torque or electrical charges

**(1)** $\boldsymbol{E = m\,c^2 = PV + \frac{1}{2} m\,c^2}$

This law *results in*:

**(2)** $\boldsymbol{\rightarrow PV = \frac{1}{2} m\,c^2}$

**(3)** **ρ is Energy density →** $\boldsymbol{\rho\ V = E = m\,c^2}$

**(4)** $\boldsymbol{\rightarrow P = \frac{\rho}{2}}$

**(5)** **E=2PV**

**(6)** **in thermodynamics:** $\boldsymbol{E = \frac{f_r}{2} PV \rightarrow f_r = 4}$

$\boldsymbol{f_r}$: Degree of Freedom

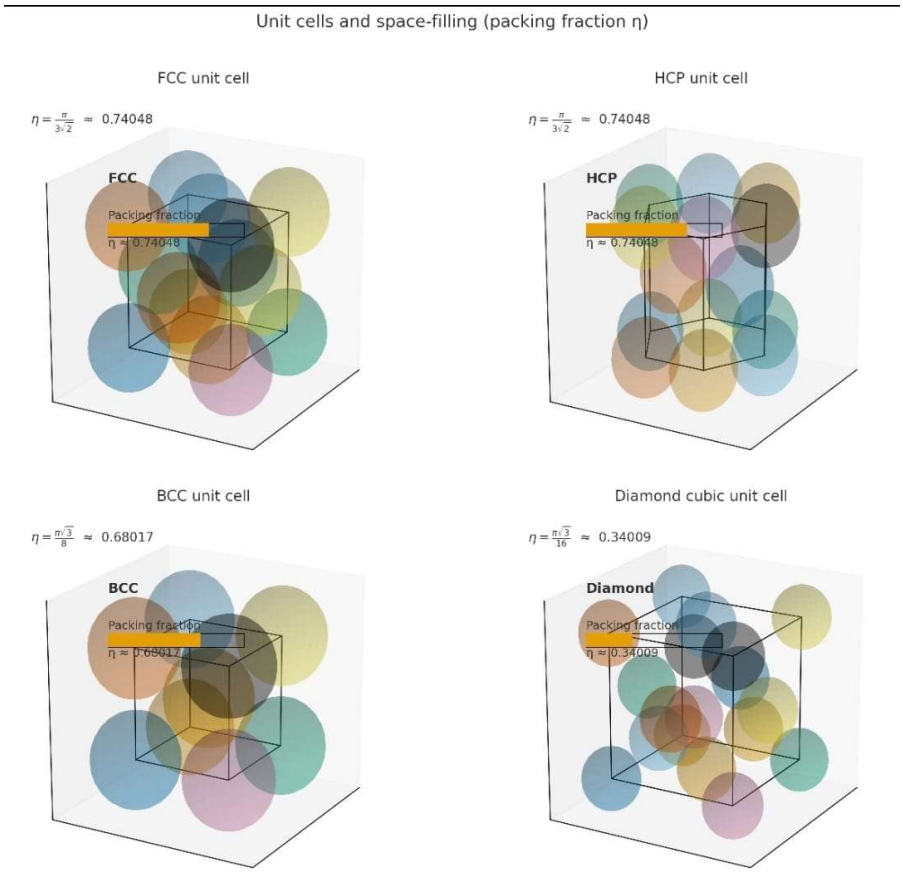
three dimensions for location and three dimensions for speed, and reduction of two dimensions for the equipotential surfaces results in 4.

# Geometry of Space Structure in Ramin Theory

Because the ramions repel one another in all directions, they ultimately reach a state of maximal compression. But in largae scales they cause space and time to expand (dark energy's role).

Although ususally both models (the FCC and HPC hexagonal) can be considered for ramion geometry, the FCC model, yields a softer space.

In the FCC model, each ramion has twelve nearest neighbours in the next layer, all tangent to it.




Geometry shows number of ramions in layer n as follows:

(7) $L(n)=10n^2 + 2$

for example L(1)=12, L(2)=42 but L(0)=1 centre

The cumulative number up to and including layer N is:

**(8)** $T(n) = (1\ for\ centre) + \sum_{k=1}^{n}(10k^2 + 2)$

**(9)** $\rightarrow$ T(n) = $(1\ for\ centre) + \frac{10n^3+15n^2+11n}{3}$

IT(t)=Round(Inverse Function of T(n))

**(10)** $\boldsymbol{\varphi} = \frac{\boldsymbol{\pi}}{\boldsymbol{3\sqrt{2}}} =$ $\mathbf{0.74048048969}$ volume occupancy factor

Ramion Theory introduces two new geometry constant: α′ and β:

For layers sufficiently distant from the assumed centre, we obtain:

**(11)** $V = \frac{4\pi}{3}\ R^3 = \frac{4\pi}{3}\ \left(\alpha'\ n\ (2\,r)\right)^3\ \frac{\pi}{3\sqrt{2}} = N\ (n)\frac{4}{3}\ \pi\ r^3$

**(12)** $\rightarrow \alpha' = \sqrt[3]{\frac{10}{24\ \varphi}} = \sqrt[3]{\frac{10\sqrt{2}}{8\pi}} =$

0.8255785095 (radial compression ratio)

Whether we consider ramions covered area as circle ($\pi r^2$) or a hemisphere ($\frac{4\pi r^2}{2}$) (but with applying the cosine correction factor), in sufficiently distant layers, $\beta$ the ratio of the coverd area to the layer area *can be calculated*:

**(13)** $(10n^2 + 2)\pi r^2 = \beta\ 4\ \pi\ R^2 = \beta\ (4\pi)\ (\alpha'\ n\ 2\ R)^2$

**(14)** $\rightarrow \beta = \frac{10}{16\ \ '^2} = \frac{10}{16\ (\frac{10\sqrt{2}}{8\pi})^{\frac{2}{3}}} = 0.91698716849$

**surface occupancy**

**(15)** $\boldsymbol{\rho_S = \varphi\rho_r}$**=0.74** $\boldsymbol{\rho_r}$

**(16)** $\boldsymbol{\rightarrow \quad \rho_r = \frac{\rho_s}{\varphi}}$

$\boldsymbol{\rho_r}$: Ramion volume energy density

$\boldsymbol{\rho_s}$: Space Energy density

Not only matters are not created by stopping or concentration of energy but also Matters (for particles or even huge black holes) are collapsing some ramions and distributing their energy into other ramions in the space, more closer more share of energy. After that a black hole remains with radius of r1=$R_H$ and velocity of v1. This hole equation is same in elementary particles in a atom or huge black holes in the space. 12 expanded ramions with r1 radius surround that hole. so not only light, but also mass is a wave in space. There is no particle-wave paradox except what our observation (by eye or device) and technology prefers or lets us.

**Ramionic Second law:** When Ramions get extra energy they can't save it by increasing their pressure or velocity (light speed C) because they are at maximum values of our universe and there is no space to increase volume. They can tolerate a little extra pressure but only as fluctuation or short time in their dynamics and not in steady state, else they collapse consequently. Only remained way is expanding space itself! But time (for observer on ramions surface) also must be expanded (dialled) with same factor (to save c and energy values). Space expansion factor must exactly Balance Force on any Ramion and its layer simultaneously:

**(17)** $F_{(R)}=F_s \rightarrow r_{(R)}{}^2 P'_{(R)} = r_s{}^2 P_r \rightarrow r_{(R)}{}^2 \rho'_{(R)} = r_s{}^2 \rho_r$

$F_s$, $r_s$,

$t_s$: $bond\ force\ and\ radis\ (or\ 2\pi r)\ and\ period\ time\ absolute\ values$ for ramion $at\ far\ steady\ state\ space$

F, $r, t$: relative values sensed-observed at any ramions surface

$P'_{(R)}$ $and$ $\rho'_{(R)}$: relative (not absolute) energy density and pressure as the observer on surface of ramion senses. They are less than $P_r$ and $\rho_r$ so simulate a vacuum and gravity to the hole interpreted as matter.

**(18)** $\rho'_{(R)} = \rho_s\,(1 - f_{(R)})$ , $P'_{(R)} = \rho_s\,(1 - f_{(R)})/2$

Function $f_{(R)}$ is defined in this model to simplify solving equations.

**(19)** $t_{(R)} = t_s/\sqrt{1 - f_{(R)}} = t_s\sqrt{\frac{\rho_s}{\rho'_s}}$

**(20)** $r_{(R)} = r_s/\sqrt{1 - f_{(R)}} = r_s\sqrt{\frac{\rho_s}{\rho'_s}}$

Force on m2 is calculated by integralling $p' \times dS$ on its surface

**(21)** $F = \int P' \times dS \rightarrow\rightarrow F = (V_{m2} = \frac{m_2\,C^2}{\rho_s})\,(\frac{-\partial\,P}{\partial\,R})$

g: gravity acceleration toward centre means –F/$m_2$

**(22)** $F = \frac{m_2\,C^2}{\rho_s}\,(\frac{-dP}{dR}) \rightarrow \boldsymbol{g = \frac{-F}{m_2} = \frac{c^2}{2}\left(\frac{-df}{dR}\right)}$

energy balance equation:

**(23)** $m_1C^2 = E_{m1} = \int_0^\infty(\rho_s - \rho)\;4\pi R^2\,dR$

**(24)** $m_1C^2 = 4\pi\rho_s\int_0^\infty f\,R^2\,dR$

So we have 3 criteria's:

a) $f(R)Function$ Must be monotonically decreasing functions, tend to zero when r→∞ and also must limited between 0 to 1,

b) $\left(\frac{-df}{dR}\right)\,functions$ Must be monotonically decreasing functions, tend to zero as r→∞,

$c)$ $integral$ $(\int_0^\infty f\;R^2\,dR)$ Must be finite and positive, so that energy can be balanced.

# The general solution:

**(25)** $f = (\frac{B}{R})^k \exp(-(\frac{R}{A})^P)$

# Solution A: Integer k and p

**(26)** $f = \sum f_{kp} = \sum (\frac{B}{R})^k \exp(-(\frac{R}{A})^P)$

**(27)** Gravitational Acceleration:

$$g = \sum g_{kp} = \sum \frac{C^2}{2} \left(\frac{-df_{kp}}{d_R}\right) = \frac{C^2}{2} \sum (\frac{B}{R})^k \frac{1}{R} \left\{ k + p (\frac{R}{A})^p \right\} \exp\left(- (\frac{R}{A})^P\right)$$

**(28)** Energy Balance: $E = \sum E_{kp} = \sum 4\pi\rho_s B^k A^{3-k} z_k(p)$

**(29)** $z_k(p) = \left(\frac{1}{\mathrm{p}}\right) \Gamma\left(\frac{3-\mathrm{k}}{\mathrm{p}}\right)$ when $\Gamma(n) = (n-1)!$ Gamma function

necessary conditions means

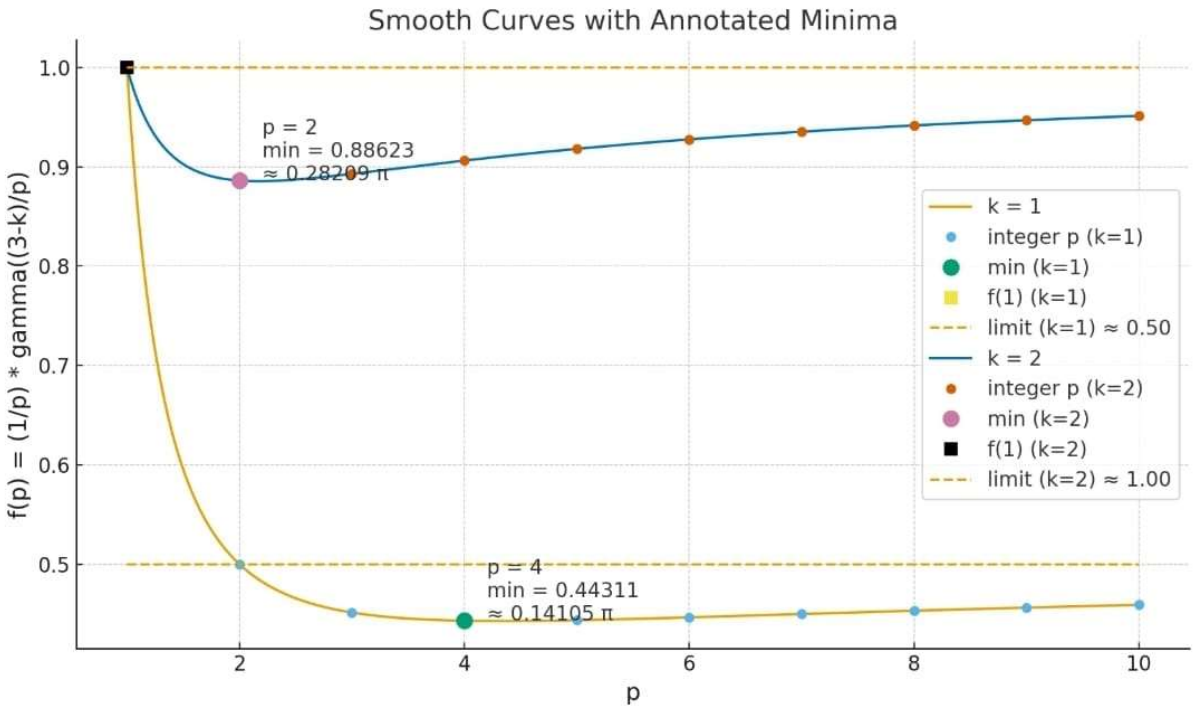
**(30)** $0 < p \leq k < 3$

Therefore: we have 3 terms in answer

K=1, t=1 Long Range Gravity consist of bright Gravity (proportional to 1/R2 as great einstein theory models) and Dark Gravity (so called dark matter , Ramion Theory explains and models it simply without any dark matter particle )

K=2, t=1 Middle Range Gravity (between short and long)

K=2, t=2 short Range Gravity like to Strong nuclear Force




**(31)** $$\rho'_s = \rho_s \left( 1 - \frac{R_F}{R} e^{-\frac{R}{R_D}} - \left(\frac{B_1}{R}\right)^2 e^{-\frac{R}{A_1}} - \left(\frac{B_2}{R}\right)^2 e^{-\left(\frac{R}{A_2}\right)^2} \right)$$

**(32)** $$g = \frac{C^2}{2R} \left\{ \begin{array}{c} \frac{R_F}{R} \left(1 + 1\left(\frac{R}{R_D}\right)^1\right) e^{-\frac{R}{R_D}} \\ + \left(\frac{B_1}{R}\right)^2 \left(2 + 1\left(\frac{R}{A_1}\right)^1\right) e^{-\frac{R}{A_1}} \\ + \left(\frac{B_2}{R}\right)^2 \left(2 + 2\left(\frac{R}{A_2}\right)^2\right) e^{-\left(\frac{R}{A_2}\right)^2} \end{array} \right\}$$

In energy balancing we can ignore energy of k=2 parts

**(33)** $$R_F = \frac{2G\,M}{RC^2} \quad \text{and} \quad g = \frac{GM}{R}\left(\frac{1}{R} + \frac{1}{R_D}\right) e^{-\frac{R}{R_D}}$$

**(34)** $$E = 4\pi\rho_s \left\{ \begin{array}{c} R_F^1\, R_D^2 \int_0^\infty x\, e^{-(x)^1}\, dx \\ + B_1{}^2\, A_1{}^1 \int_0^\infty x^2\, e^{-(x)^1} dx \\ + B_2{}^2\, A_2{}^1 \int_0^\infty x^2\, e^{-(x)^2} dx \end{array} \right\}$$

**(35)** $$E = 4\pi\rho_s\, R_F^1\, R_D^2 \;\rightarrow\; E = 4\pi\rho_s\, (R_F = \frac{2G\,M}{RC^2})\, R_D^2$$

**(36)** $\rightarrow C^4 = 8\pi G \rho_s\, R_D^2$ relating light speed c , G constant, space energy density $\rho_s$ and radius of dark gravity observation $R_D$

In this solution we must fit 3 curves to find 4 parameters
$B_1 \quad A_1 \quad B_2 \quad A_2 \quad to$ support all criteria

# About $\boldsymbol{\rho_s}$

**(37)** If $\rho_s = 5.4 + 10^{-10}\, {}^{J}/_{m^3}$

Then:

**(38)** $R_D = 9.46\, x\, 10^{25} m = 10^{10}\, LY$

If $R_D$ is taken to be $10^6$ times smaller (i.e. 10,000 light-year), then we must take $\rho_s$ =$10^{12}$; hence:

**(39)** $\rho_s = 540\, {}^{J}/_{m^3}$

However, excessively large estimates of this energy density are incorrect.

# Solution B: floating k and p

K and p are changed from 2 for R1 to 1 for R→∞

R1: radius about the Hole with radius $R_H$

**(40)** $k$=p=$(1+\frac{R_1}{R})$ →$R_1$: where k=p=2, R>$\frac{R_1}{2}$ for k<3

**(41)** $$\rho'_s = \rho_s(1-f) = \rho_s\left(1 - \left(\frac{R_F}{R}\right)^{(1+\frac{R_1}{R})} e^{-(\frac{R}{R_D})^{(1+\frac{R_1}{R})}}\right)$$

$\int_{R_1}^{\infty} f\ 4\pi R^2\, dR$ =4π$R_F$ $R_D^2$ ( 1 +$\frac{R_1}{R_D}$(ln($\frac{R_F}{R_D}$)+2γ-1) +O($\frac{R_1^2}{R_D^2}$ln($\frac{R_D}{R_1}$)) )→like 36

γ =0.5772156649 Euler – Mascheroni constant

O: big O function, Order of the error term, Asymptotic upper bond

$\int_{\frac{R_1}{2}}^{R_1} f\ 4\pi R^2\, dR$ =4π$R_F$ $R_1^2$ ( $\frac{1}{2}$ ln($\frac{R_F}{2R_1}$)+ $\frac{7}{8}$ )=12* energy of layer 1 Ramion

For R>>$R_1$ it results in Bright and Dark gravity:

**(42)** $$\rho'_s = \rho_s(1 - \frac{R_F}{R} e^{-\frac{R}{R_D}})$$

**(43)** $$g = \frac{G\,M}{R}\left(\frac{1}{R} + \frac{1}{R_D}\right) e^{-\frac{R}{R_D}}$$

For R near $R_1$ it results in strong nuclear force:

**(44)** $$\rho'_s = \rho_s(1 - \left(\frac{R_F}{R}\right)^2) e^{-\left(\frac{R}{R_D}\right)^2})$$

**(45)** $$g = \frac{G\,M}{R^2}\left(2 + 2\left(\frac{R_F}{R}\right)^2) e^{-(\frac{R}{R_D})^2}\right)$$

*energy balance like solution A is* $C^4 = 8\pi G\rho_s R_D^2$ $C^4 = 8\pi G\rho_s R_D^2$

# Relativity and Time dilation

$$\textbf{(46)} \qquad t_{(R)} = \frac{t_s}{\sqrt{1- f_{(R)}}} = t_s\sqrt{\frac{\rho_s}{\rho\prime_s} = \frac{r^2}{{r_s}^2}} = t_s \frac{r}{r_s}$$

For example in long range part of gravity:

$$\textbf{(47)} \qquad t_{(R)} = \frac{t_s}{\sqrt{1-(\frac{R_F}{R})}} = \frac{t_s}{\sqrt{1-(\frac{2G\,M}{c^2\,R})}}$$

If a mass moves at speed **v**, we obtain the following relation:

$$\textbf{(48)} \quad t_{(R)} = t_s\sqrt{1 - (\frac{v^2}{c^2} = \frac{R_F}{R})}$$

There is no distinction between these two terms $\frac{v^2}{c^2}\, or \quad \frac{R_F}{R}$ just as a body must *obtain* the speed V (escape velocity) to escape of gravity of *itself*.

However, the speed and the energy are observer-independent. When a mass "moves", the ramions effectively move in the opposite direction because mass is a hole and distributed energy in all space.

In this theory we can study time dilation more than relativity or quantum theories by above formulas.

# Energy of moving objects:

We can simply form R′ function like to R′(x,y,z) or R′(R,θ,φ) or R(r, φ,z) to obtain distance of any point in space to last position of object due to ratio of its v or ω to c.

(in fact gravitational wave is travelling by light speed because this is maximum speed of data or energy through Ramions unless a narrow net connects two Ramions by empty geometry between other Ramions in warm hole or entanglement state)

Anyway we consider gravity speed as c

$$\textbf{(49)} \quad \mathrm{E} = \rho_s \int \frac{R_F}{R'} \; e^{-\frac{R'}{R_D}} \; dV$$

for example in spherical

$$\textbf{(50)} \quad \mathrm{E} = \rho_s \int \frac{R_F}{R'} \; e^{-\frac{R'}{R_D}} \, 4\pi R^2 \, dR$$

If an object moves with speed x along a straight line, every point in space (at distance R from it) senses it $v\,\Delta t$ behind, therefore:

$$\textbf{(51)} \quad \Delta x = (\Delta t = \frac{R}{C}) v = \frac{v}{C} \; R$$

$$\textbf{(52)} \quad R' = \sqrt{\left(x + \frac{V}{C} \; R\right)^2 + y^2 + z^2}$$

$$\textbf{(53)} \quad E = \frac{\rho_s \, 4\pi \, R_F R_D^2}{1-(\frac{V}{C})^2} = \frac{\rho_s \, 4\pi \, \frac{2\,GM}{C^2} \, R_D^2}{1-\frac{V^2}{C^2}} = \frac{MC^2}{1-\frac{V^2}{C^2}}$$

If an rotates on a circle of radius r with angular speed $\omega$:

$$\textbf{(54)} \quad \Delta\theta = (\Delta t = \frac{R}{C}) w = \frac{w}{C} \; R$$

$$\textbf{(55)} \quad R' = \sqrt{\left(x - r \, \cos\left(-\frac{\omega}{c} \, R\right)\right)^2 + \left(y - r \, \sin\left(-\frac{\omega}{c} \, R\right)\right)^2 + Z^2}$$

$$\textbf{(56)} \quad \mathrm{E} = \rho_s \int \frac{R_F}{R'} \; e^{-\frac{R'}{R_D}} \, 4\pi R^2 \, dR = \rho_s \, R_F \, \pi \, R_D^2 = MC^2$$

So in Ramin theory energy of rotating object on closed routes does not exceed $MC^2$.

So in Ramin theory, based on the path we simply and accurately compute the energy attributed to the object.

# Electromagnetism, weak Force and Fine Structure constant

Each Ramion has a rotation, such that the m-equivalent of its energy rotates at the speed c:

**(57)** $$e = mc^2 = \left(PV = \frac{1}{2}\, mc^2\right) + \left(\frac{1}{2}\, mc^2\right)$$

- Pressure part: $\left(PV = \frac{1}{2}\, mc^2\right)$
- Rotation part: $\left(\frac{1}{2}\, mc^2\right)$

The torque vector is positive at one pole and negative at the other; therefore each ramion has an equal amount of positive and negative electrical charge.

When a particle forms (i.e., a cavity or black hole devoid of ramion), then around that cavity, in a persistent manner, twelve swollen ramion are situated.[1]

These twelve Ramions are located around the cavity and must satisfy torque equilibrium. Therefore, they form pairs—two by two—that produce similar charge.

- As a result, we have six pairs with positive and negative charge.
- Among these six pairs, if all have the same sign, we have charge -e or +p.
- Thus, each Ramion has the electric charge as follows: $\pm\frac{e}{12}$
- If one pair is opposite to the others, then the net charge is: $\pm\frac{8}{12}e = \pm\frac{2}{3}e$

[1] **It is worth noting that the dynamics of this matter are also examined within Ramion theory, and there is scope for further study.**

- And if two pairs are opposite to the other four pairs, the net charge will be as follows:

$$\textbf{(58)} \qquad \pm\frac{4}{12}\,e = \pm\frac{1}{3}\,e$$

This simple explanation shows why the only possible charges of an particle can only be the following numbers: $\pm 1\ or\ \pm\frac{2}{3}\ or\ \pm\frac{1}{3}$

Therefore, each charged particle requires energy to create these charges (electrical charges), and this energy (noted st for structure or p for potential) is released into space as negative energy (according to the same relations discussed in the gravity section).

If we assume that bringing a ramion hemisphere with charge q from infinity to the radius R of another ramion hemisphere with charge q, requires the integral of the following force:

$$\textbf{(59)} \quad \mathrm{f}_1 = \frac{Kq^2}{{R_q}^2}$$

then we will have:

$$\textbf{(60)} \quad E_1 = \frac{Kq^2}{R_q}$$

Energy needed to bring *n* ramions:

$$\textbf{(61)} \quad E_p = \sum_{t=2}^{n} (t-1)\ \frac{K\,(Q/n)^2}{R_q}$$

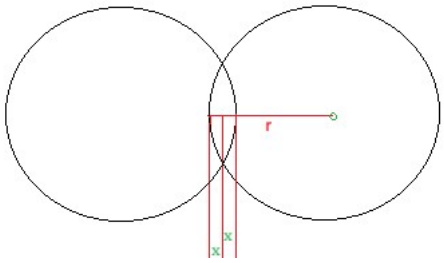
It should be noted that, in this part of the equation: $(t-1)$, the number 1 indicates that the first particle requires no energy.

$$\textbf{(62)} \quad E_p = \frac{K}{R_q}\left(\frac{Q}{n}\right)^2 \frac{n\,(n-1)}{n^2} = \frac{K\,Q^2}{R_q}\left(1-\frac{1}{n}\right) = \frac{K\,Q^2}{4\pi R_p}$$

This coefficient: $\left(1-\frac{1}{n}\right)$, indicates the reduction in the required energy in the discrete, quantum case compared with assuming a continuous electric charge, and it is very important.

The $E_p$ like a negative energy or mass must be supplied by the surrounding ramions. No need to compress space! because getting energy reduces ramions pressure and let them to have a slight indentation into the others.

This Negative Equivalent Mass or energy and force (maybe in combination with the strong nuclear force) and possibility of collapsing Ramion because of too indentation is modelled by weak nuclear force.




$V_c = V_{Common}$ (On one side) $= 2\,V_{cap}$ (On both sides)

$$\textbf{(63)} \quad V_{common} = V_c = 2V_{cap} = 2\pi\left(x^2 r - \frac{1}{3}x^3\right)$$

$r, v$: *ramions radius* and volume

x: indentation

$$\textbf{(64)} \quad \frac{V_c}{V} = \frac{3}{2}\left(\frac{x}{r}\right)^2 - \frac{1}{2}\left(\frac{x}{r}\right)^3$$

$$\textbf{(65)} \quad \rho'_s = \rho_s\left(1-\left(\frac{R_F}{R}+\frac{V_c}{V}\right)e^{-\frac{R}{R_D}}\right);$$

Gravity , Relativity and electricity together

*Indentation after Space expanding: means more decreasing in energy density*

**(66)** $E_P = \rho_s \int_0^\infty (\frac{V_c}{V}) e^{-\frac{R}{R_D}} 4\pi R^2 dR$

**(67)** $E_P = \rho_s \int_0^\infty (\frac{3}{2}(\frac{x}{r})^2 - \frac{1}{2}(\frac{x}{r})^3) e^{-\frac{R}{R_D}} 4\pi R^2 dR$

**(68)** $suppose\ \frac{x}{r} = (\frac{R_p}{R})^{k'}$ find correct k'

**(69)** $p = 1 \rightarrow 0 < p \leq 2$k'<3 and $0 < p \leq 3$k'<3

*as we saw in gravity equations*

**(70)** $\rightarrow k' = 1/2$ ;to have limited integral

**(71)** $(\frac{x}{r})^2 = \frac{R_p}{R}$

**(72)** $\rightarrow \frac{x}{r} = (\frac{R_p}{R})^{0.5} = indentation\ actor$

**(73)** $E_P = \rho_s \int_0^\infty (\frac{3R_p}{2R} - \frac{1}{2}(\frac{R_p}{R})^{3/2}) e^{-\frac{R}{R_D}} 4\pi R^2 dR$

**(74)** $E_P = 4\pi\rho_s (\frac{3}{2} R_P R_D^2 + \frac{1}{2} R_D^{1.5} R_D^{1.5} \Gamma(\frac{3}{2}))$

**(75)** $E_P = 4\pi\rho_s (\frac{3}{2} R_P R_D^2 + \frac{1}{2} R_D^{1.5} R_D^{1.5} \frac{\pi^2}{2})$

**(76)** $E_P \approx 4\pi\rho_s (\frac{3}{2} R_P R_D^2)$ ;because $R_P << R_D$

**(77)** $E_P = \frac{3C^4}{4G} R_P$ ;because $C^4 = 8\pi G \rho_s R_D^2$

The caps save space to release energy for Ep but they can reduce the ramion's torque if they are not oriented in the same direction:

**(78)** $I = \frac{2}{5} mr^2$

Rotational inertia with a volumetric distribution:

**(79)** $I = \frac{2r^2}{5}\left(\Delta m = \frac{\rho_{r/2}}{c^2}\left(\Delta v = V_r\ \frac{3}{4}\left(\frac{x}{r}\right)^2\right)\right)$ ;Vr: Ramion Volume

**(80)** $I = \frac{3}{20}\ \frac{E_S}{c^2}\ \left(\frac{R_p}{R}\right)\ r^2$ ; $E_s$: Ramion energy

Density ρr devided by 2 because only half of energy dedicated to rotation.

How is the electric field propagated in space—that is, in the Ramions? As long as no other charged particle is present, the Ramions, by sharing the volume $V_c$, supply the electric potential energy $Q_1$; and since they become aligned, they perceive the same volume, pressure, and even the previous torque. Ramion theory makes possible the propagation of the static electric field, which is not possible with Photon, because photons can explain electromagnetic wave, not static electrical field.

Now suppose the charge $Q_2$ is placed in this field. The twelve Ramions of the charge $Q_2$ cannot rotate freely along this path and align their torques; consequently, energy is required at the angle $\theta$:

**(81)** $E_{1Rami} = \frac{1}{2}\left(\frac{3}{20}\ \frac{E_S}{c^2}\ \left(\frac{R_{P1}}{R}\right)\ r^2\right)\ \omega^2 \cos\theta$

**(82)** $r\omega = c$

**(83)** $E_{1Ramion} = \frac{3}{40}\ E_S\ \left(\frac{R_{P1}}{R}\right)\ \cos\theta$

**(84)** $F_{1Ramion} = \frac{-dE}{dR} = \frac{3}{40}\ E_S\ \frac{R_{P1}}{R^2}\cos\theta$

**(85)** Pressure: $P_2 = F_{1Ramion}\ \frac{\beta}{\pi\, r^2}\ ,\ \ \beta = \frac{10}{16\left(\frac{10\sqrt{2}}{8\pi}\right)^{2/3}}$

**(86)** $F_2 = \int P_2 = \frac{3}{40}\ e\ R_{st1}\ \frac{\beta}{\pi\, r^2}\ \left\{\frac{2\,V_2}{R^3}\right\}$

**(87)** $$F2 = \frac{6}{40}\ \frac{4r\ E_s\beta}{4r\ \pi\ r^2{=}3V_r}\ \ \frac{2\ V_2}{R^3}\ \text{x}\ R_{p1}$$

**(88)** $$\hbar c = \left(\frac{E_s}{\omega}\right)\ (r\omega) = E_s r \qquad ;\hbar\ definition$$

**(89)** $$F_2 = \frac{16}{40}\hbar c\ \left(\frac{V_2}{V_r}\right)\ \left(\frac{R_{p1}}{R^3}\right)$$

Now we assume $Q1 \gg Q2$

**(90)** $$\frac{Q_2}{R_{q2}} = \frac{Q_1}{R}$$

**(91)** $$F_2 = \frac{16\beta}{40}(\hbar c)\ \ \frac{R_{p1}}{R^3{=}\ R^2\ \ (R{=}\frac{Q_1 R_{q2}}{Q_2})}$$

**(92)** $$F_2 = \frac{16\beta}{40}(\hbar c)\ \ \left(\frac{Q_2\ R_{p1}}{Q_1\ R_{q2}}\right)\ \ \frac{1}{R^2}$$

To avoid being restricted to the condition $\langle {Q_2 \ll\ Q_1 \atop R_2 \ll\ R_1}\rangle$, and to make the forces $F_1\ and\ F_2$ equal, we compute the geometric mean of $F_1\ and\ F_2$:

**(93)** $$F = \sqrt{F_1\ F_2} = \frac{1}{R^2}\ \frac{16\beta}{40}\ \hbar c\ \ \sqrt{\frac{R_{p1}}{R_{q1}}\ .\frac{R_{p2}}{R_{q2}}}$$

**(94)** $$F.R^2 = Q_1 Q_2\ \hbar c\ \left(\frac{\beta}{40\ \pi}\ \ \frac{1}{\sqrt{1-\frac{E_S}{E_1}}}\ \ \frac{1}{\sqrt{1-\frac{E_S}{E_2}}}\ \right) = Q_1 Q_2\ \hbar c\alpha$$

**(95)** $$\frac{1}{\alpha} = \frac{40\pi}{\beta{=}\frac{10}{16\ (\frac{10\sqrt{2}}{8\pi})^{2/3}}}\sqrt{1-\frac{E_S}{E_1}}\ \sqrt{1-\frac{E_S}{E_2}}$$

when $E_s$, $E_1$, $E_2$ denote the Energy of ramion, Q1 , Q2 respectively ,Es means energy of ramion at far steady state space.

Ramion has no EPE (Electrical Potential Energy) anyway but EPE must be included in E1 and E2 because in Ramionic no particle even ramion considered as a dot.

We know the pure force between electron and neutron is zero So we can say DUE (down and up quarks and electrons) are similar (with same total E we name it $E_{DUE}$ ) with equal radius so their EPE=$kq^2/2r$ is proportional to $q^2$

if we name EPE of electron as $EEPE_e$ we have 3 equations for D U e

$4.8 = E_{DUE} - EPE_e \times (1/3)^2$

$2.3 = E_{DUE} - EPE_e \times (2/3)^2$

$0.511 = E_{DUE} - EPE_e$

We can fit a curve by keeping electron on the curve because its data are real measured and have more accuracy:

→ $E_{DUE}$ =4.534 $EPE_e$ =4.023

→ so without EPE we have $E_D$=4.087 $E_U$=2.746 Ee=0.511

We increase above data accuracy more in next parts.

For any DUE particles (of that generation we know)

**(96)** $\frac{1}{\alpha} = 137.03976507112 \sqrt{1 - \frac{E_S}{E_{DUE}}} \sqrt{1 - \frac{E_S}{E_{DUE}}} =$

137.035999206

$\rightarrow \frac{E_{DUE}}{E_S} = 36389.9823026906$

$\frac{E_{DUE}}{E_S}$ must be whole number $\rightarrow \frac{E_{DUE}}{E_S} = 36390$

→ more precise $\frac{1}{\alpha} = \frac{40\pi}{\beta = \frac{10}{16\left(\frac{10\sqrt{2}}{8\pi}\right)^{\frac{2}{3}}}} \left(1 - \frac{1}{36390}\right) =$

137.0359920783

So in Ramionic not only we can calculate $\frac{1}{\alpha}$ but also we can correct its value

**(97)** $Ramion's\ Energy$ at far steady state space

$E_s = \frac{E_{DUE}}{36390} = \frac{4.534}{36390}$=124.59467 eV

# Explanation of matter–antimatter Asymmetry

Our Universe is similar to a Ramion—perhaps a ramion nested within its mother cosmos, with the possibility of an unbounded mother–daughter hierarchy, or even a recursion in which the whole curls back into its own core. In any case, the only plausible rationale for the breaking of matter–antimatter symmetry is that our Universe is currently performing the rotation.

If, in our surroundings (i.e., within the hemisphere of the Universe we inhabit), the rotation is such that a slight negative charge resides in the internal vacuum of space, then this small excess (together with electric-charge conservation) drives the heavier particles to become + and the lighter particles to become −.

Thus, in the other hemisphere of our universe, antimatter may perhaps dominate.

Therefore, if cosmological observations in our vicinity allow us to determine the prevailing direction of rotation, that direction, reflected within the ramion, can likewise indicate whether a clockwise produces of a ramion corresponds to positive or to negative charge.

Photon is not merely an electromagnetic wave; macroscopic bodies may likewise be regarded as hypothetical quanta. Accordingly, both material quanta and photon are, in essence, waves rather than particles. Under certain observational conditions, however, they may be perceived and registered as particles.

# Photons and ħ in Ramionic

A single Ramion cannot act as a photon on its own, because it would have to change either its rotational speed or its direction of rotation, and it has no force to accomplish either.

Consequently, the electric field generated by the rotation of the Ramion—and, on larger scales, as described by the Maxwell's equations—by its own rotation gives rise to a magnetic field. However, since this energy transfer ultimately proceeds in the form of Ramion quanta, it can be regarded as a quantum of energy, termed photon. The energy of this photon is similar to the hypothetical Coriolis force:

**(98)** $F = m(c) \times w$

**(99)** $E = m\,(rv) \times w = mrc\,w =$

$$\hbar = mrc \quad [reduced\ Planck\ constant\ ] \rightarrow E = \hbar\, w \quad [For\ photon]$$

$$[For\ real\ Ramion]\ \hbar\, c = mrc^2 = m\, c^2\, r = er$$

# Elementary particles, QFT, QCD and Strings Theory

In the ramion, not only the fine-structure constant but also the reason for the electric charges $0, \pm 1, \pm \frac{2}{3}\ or \frac{1}{3}$, the matter–antimatter asymmetry, and the specific masses of the elementary particles are readily calculable.
With the Ramion theory, the dynamics of ramion (elementary-particle) reactions can likewise be modelled with the highest conceivable precision.

In space geometry we saw $L(n)=10n^2+2$=(number of ramions of layer n) and

$T(n)=1+(10n^3+15n^2+11n)/3$=(number of ramions from centre to layer n).

**Neutrinos** are simple particles without electrical charge or any type of quark.

Neutrinos type A have two parameters n , k

NT(n/k) energy is $E_s$*T(n)/k

If k=1 then notation can be simpled to NT(n)

For example NT(4)=NT(4/1) is a particle with energy of Es*T(4)/1 =309Es

They are usually formed by collapsing layers 1 to n and making k neutrinos,

Neutrinos can be received or transmitted (radiated) in Ramionic reactions so they can have catalytic effect or start, Relax (Temporarily reduce speed to complete some stages like electrical charges stabling) and finally balance energy then stop a Ramionic reaction.

So we may have Neutrino Type B with any value of energy that can't be calculated as $E_s$*T(n)/k with n and k as whole numbers. So they are noted by only one parameter. For example NT4 is a particle with energy of 4Es.

So type B neutrino has no parentheses in our notation.

**Strong layers:** When Ramions (means Energy) is converting to matter particles, it means some ramions collapse and explode their energy into space

consequently but Strong Layers protect space network and universe against full collapsing.

Calculating them needs huge computers but Ramionic suggests easiest way:

They are most similar layers to real Sphere so:

1-They are similar to layer 0 (solo centre) or 1(with 12 tangent Ramions) so their number is multiples of 12

2-They are similar to very large layers ($10n^2+2$) so their number is multiples of 10

Then we can conclude they are multiples of 60 but multiples of 120 are stronger anyway Layers 60 k are strong and layers 60k+30 are weak;

Under layer 120 curve is defined logarithmic volume instead of linear radius:

**Strong layers:** 1,3,5,7,9,11,15,18,23,30,37,47,60,75,95,120,…60k,…

for layer 1 to 120: $T(s)=T(120)/\sqrt{2}^{\text{even number}}=T(120)/2^{\text{whole number}}$

**Weak Layers**: 2,4,6,8,10,13,16,21,26,33,42,53,67,85,107,150,…60k+30 ,…

for layer 1 to 120: $T(w)=T(120)/\sqrt{2}^{\text{odd number}}$

**Layer 119 volume divider:** $T(s)=T(119)/2^n$

1,3,5,7,9,11,14,18,23,29,37,47,59,75,94,119 **very similar** to strong layers under 120

if we draw a graph with 1 for strong layers and 0 for weak layer there is related to probability of having package of particles that need collapsing n-1 layers because layer n must stop ramion collapsing.

Above table shows that when reaction stops in layer 120 it means 119 layers are collapsed and energy distributed also the reaction had stops at layers 95,75,... and **in each stage energy is doubled**. This is dynamics of ramion reactions that convert energy to mass and reverse and explains why reaction expands with **factor $2^{\text{stage}}$** and any particle packet has **$2^k$-1 factor**.

**Barions generation g (type p, k)** Means collapsing of

ramions layers 1 to **120g-1**, stopped by layer **120g** to make:

**p packages of Not-charged DUE (**EPE equivalent included)

**Any package can be $(2^k-1)$ of DUE will be transformed to:**

**$(2^{k-1}-1)$ Up + $(2^{k-2}+1)$ Down + $(2^{k-2}-1)$ electron**

that can be transformed to **$(2^{k-2}-1)$ (electron +proton)+ 1 neutron** after giving (EPE energy to have electrical chargs) and getting extra energy from next layers (to have rotational magnetic energy).

**Neutron to proton ratio** in above combination is $(2^{k-2}-1)$ but other combination of (D U e) then (P N e) are possible:

Consider this equations:

$2^{k-1}=3(P+N)+e$ ; energy balance in production of DUE's

$P=e$ **and** $(2P+N)2/3-(P+2N)/3-e/3=0$ ; electrical charge balancing

P, N, e, k: natural number

P>N ; proton more than neutron

**Then**

for k<3 there is no answer

k=4 : only one answer: ( 3P 1N 3e ) means (7U 5D 3e) means P/N:3

k=5: only one answers: (7P 1N 7e) means (15U 9D 7e) means P/N:7

k=5: only two answers:

(15P 1N 15e) means (31U 17D 15e) means P/N:15

(12P 5N 12e) means (29U 22D 12e) means P/N:12/5

Normal DUE are barions 1,5,5

Means package 15U+9D+7e that can generate 7(e+P)+1N

Energy balance:

T(119)=5688439=delta1+5*(delta5+31*(delta31+36390)

## → 5688439=4+5*(18+31(36390+309)) ;309=NT(4)

36390 seems to be accurate because generated NT(4) has more than difference to NT(3)=147 or NT(5)=561

We obtained 36390 from geometry independently of fine structure constant.

In above equation DUE's are exactly same because they have no EPE (Electrical potential Energy) and $E_{due}$ or 36390 includes it.

Energy of uncharged packet = $E_{ncp}$=31EDUE

After getting electrical charges means reducing particles energy:

$E_D=E_{DUE}-EPE_e*1/9$

$E_u=E_{DUE} - EPE_e *4/9$

$Ee=E_{DUE} - EPE_e$

Energy of charged packet = $E_{cp}=15E_u +9 E_d + 7 E_e$

$E_{cp}$ =(31 Edue) – (15*4/9 +9*1/9 +7) $EPE_e$ = $E_{ncp}$ – (8+60/9) $EPE_e$

$E_{ncp}$ =31EDUE  $E_{cp}$ = $E_{ncp}$ -132/9 $EPE_e$

$E_{ncp}$ =31*4.534=140.554MeV  $E_{cp}$ =140.554-132/9*4.023=81.55 MeV

We see one neutrino NT(4) is generated with any EUD in the major Ramionic reaction. some of generated neutrino continues this reaction to more layers to convert DUE to NPE (Neutron proton electron) the others starts new reactions and remained neutrinos may be be radiated and even participate in Cosmic microwave Neutrino **CvB** or Cosmic microwave background **CMB.**

Layer 120 can not resist against explained reaxtion in the reaction continues to transform (Due's) Finally 7 electrons, 7 protons, 1 neutrons remains:

Final energy = $E_F = 7*0.51099895069 + 7*E_P + 1*E_N$

$E_P$=938.27208816 MeV

$E_N$=939.56542052 MeV

$E_{Packet}$ =7(Ep+Ee)+En= 7511.0470302948 Mev

$E_{5p}$= (5)*7511.0470302948 Mev ;;;no packet added after layer 120

$E_{5p}$ = 37555.235151474 Mev

$E_s$ =124.59467 eV

IT($E_{5p}$ / $E_s$)=448

Final Stopping Layer=next stopping layer=480

Neutrino Energy to Barion Energy ratio=21.919794%

$E_{6p}$ = (5+1)*7511.0470302948 Mev ;;;**one packet added after layer 120**

$E_{6p}$ = 45066.2821817688 Mev

IT($E_{6p}$ / $E_s$)=448

Final Stopping Layer=next strong layer=480 so last collapsed layer is 479.

Neutrino Energy to Barion Energy ratio=1.599828%

So Extra Packet is more compatible with current observations.
in fact at Ramionic reactions **most similar, large, stable packets** and particles are produced. In the first case reaction has about 22% extra energy whit 5 packets so sixth packet have to generated before.

We can conclude that neutrino type B have a little life time and in Type A stable neutrino have k=1.

Stong layers are 1,3,5,7,9,11,15,18,23,30,37,47,60,75,95,120,…60k,… so stable neutrinos are NT(2), NT(4), NT(6), NT(8),NT(10),…

So we can balance final energy:

we suppose D U e are unchanged and new particle called P and N are absorbing similar rotational energy saving magnetic energy named M for any proton or neutron

T(479)=367489759 Ramions

T(479)/6=61248293+1

Any packet energy: 61248293 Es

8M= 61248293 Es – Ecp -31*N(4)

Es =124.59467 eV ;Ramions energy

Ecp= 81.55 MeV ;after having electrical charge E reduced

N(4)=309 Es ;Radiated before ending reaction

M=943.55 MeV

So

$E_P$=943.55+2($E_U$=2.746)+($E_D$=4.087)=953.129 MeV

$E_N$=943.55+1($E_U$=2.746)+2($E_D$=4.087)= 954.47 MeV

**Higgs Boson:**

IT(126 GeV/ Es)=671

Accurate Energy of Z Boson=T(660-1)*Es=119.130 GeV

Higgs boson is NT(659) ;no need to explain the mass in ramionic

**ZBoson:**

IT(91.2 GeV/ Es)=603

Accurate Energy of Z Boson=T(600-1)*Es= 89.484166 GeV

Z boson is NT(599)

**W Boson:**

IT(80.4 GeV/ Es)=578 not acceptable

IT(2*80.4 GeV/ Es)=728 ;we know they are couple

Accurate Energy of W Boson=T(720-1)*Es/2=77.346542 GeV

W bosons are generated in special reaction with two + - production.

;no need to explain the weak nuclear force in ramionic

Ramionic need no Energy or Force carrier or mass Producting particle or Dark matter or Dark energy. all of them simply are explained by Ramions. Other particle may be are wrong interpret or huge neutrino or complex particles. Bcause in Ramionic we now 12 ramions around any particle hole have electrical charge even on Neutral particles so any particle can have 12 bond with other particles. In proton and neutron central particle uses only 2 bonds.

Ramionic is compatible with QFD except that in Ramionic there is only one fluctuating field: Ramions,

Ramionic help QCD o do more effective calculation without gluon

Ramionic models apece-Time particles but real and 3 Dimensional.

# Cosmology and multiverse

In Ramin theory, bridges have been built not only between gravitation and electromagnetism (the so-called four fundamental forces) and between relativity and the quantum, without singularities for everything from the smallest particles to the largest black holes.

For example, the followings, relate dark matter and the energy density of space (e.g., dark energy):

**(100)** (far Gravity For k=1, p=1) $F = \frac{2\,GM}{C^2 R}\left(\frac{1}{R} + \frac{1}{R_D}\right) e^{-\frac{R}{R_D}}$

**(101)** $R_D^2 = \frac{C^4}{8\pi\ G\ \rho_S}$

This theory models matter, dark matter, and waves by altering the arrangement of Ramions, and therefore only the energy of space must be taken into account in calculations of the age and dimensions of the Universe.

Studies based on this theory open many avenues concerning the expansion of the Universe, the Big Bang, and cosmology, in addition to relativity, quantum theory, and elementary particles.

In Ramion Theory all of universe is filled by Ramion, Ramion and space energy density is same even close to matter, so **maybe** in calculation on Hubble constant H0 we have to consider Dark energy (= Space energy density) share as 100% means $14.46\times10^9$ year Universe age and $14.46\times10^9$ LY observable radius.

# Ramin theory and philosophy

On the one hand, ramions remove the finger of God from the fine-structure constant and fine tuning, and place the burden upon geometry!

On the other hand, they indicate that our entire Universe could be a ramion within a more transcendent universe; conversely, our Universe may be the mother or daughter of other universes. Perhaps this chain is infinite, or perhaps it returns to itself—our Universe may be, for example, the mother of its own mother's mother.